



# CAP Communications System

CAP Fixed Repeater

CAP Aircraft

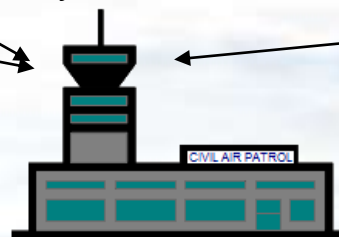


Partner Agency Aircraft

Long Range via HF

Comm with higher HQ

Short to Medium Range via VHF



Incident Command Post



CAP Ground Vehicles



Partner Agency Vehicles



CAP Ground Teams Dismounted

## Agile support for SAR, DR, DSCA, HLS ops

- Commercial infrastructure independent
- Analog, digital and encryption capable
- VHF for local (<20 miles)
- Fixed repeaters for medium range (<50 miles)
- Airborne repeaters for temporary medium range (<200 miles)
- HF for long range (unlimited)
- Fully interoperable with all partner agencies



# VHF-FM P25 Radio System

- Vehicles – Aircraft – Base stations
- 956 VHF-FM P-25 encryption capable base stations
- 2,914 VHF-FM P-25 encryption capable mobile radios
- 1,258 VHF-FM P-25 non encryption capable mobile radios
- 2,435 VHF-FM P-25 encryption capable portable (hand held) radio
- AES and DES encryption capable
- 850 VHF-FM analog mobile radios





# VHF-FM P25 Repeater Network

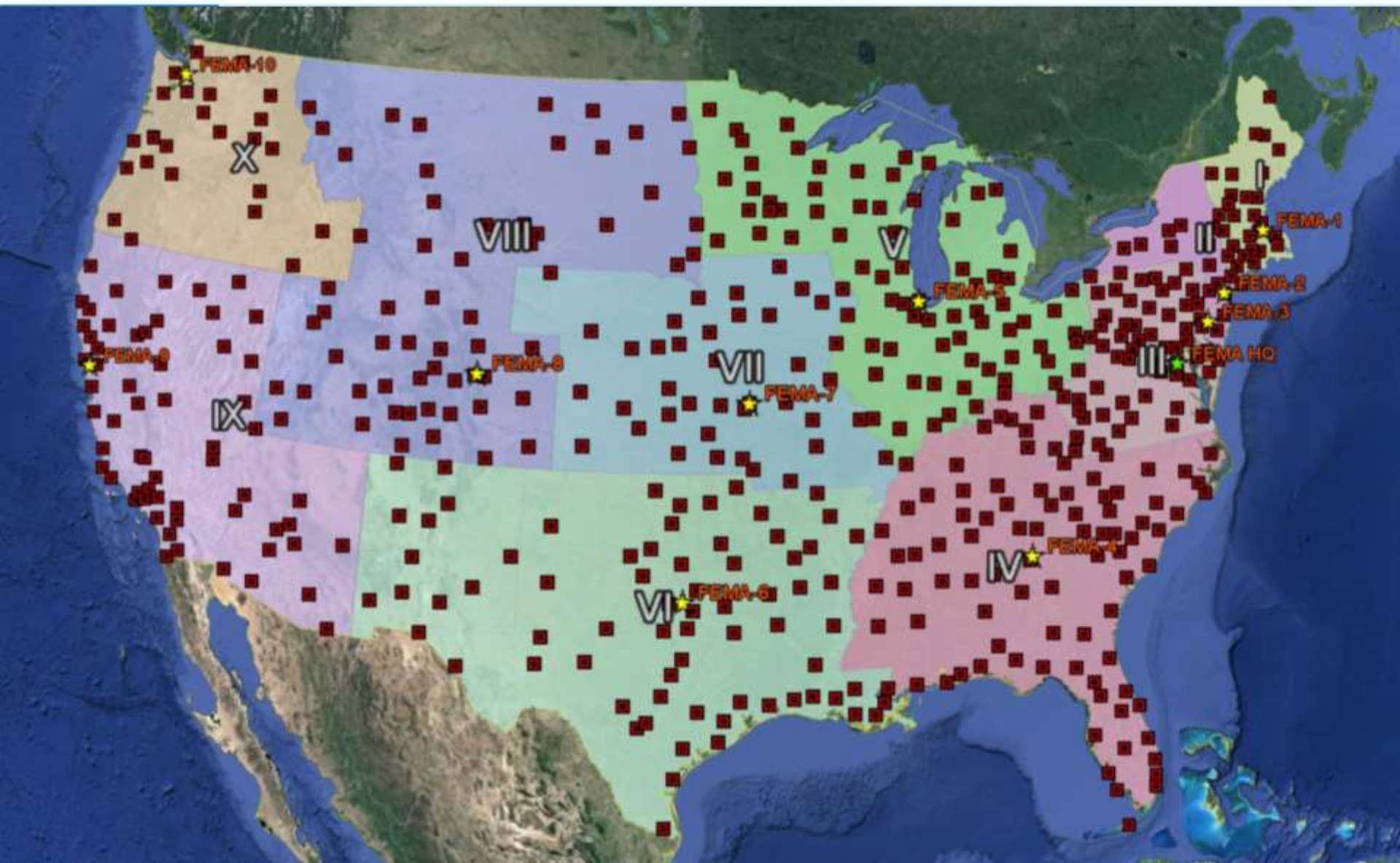
- 550 Motorola Quantar Repeaters
  - “Dual mode” Analog / P25 digital
  - Pass through capability for AES, DES and Type 1 encryption
  - Federal frequencies (NTIA/USAF)
  - Many are co-located with other government systems in secure locations
  - Some with emergency back-up power







# CONUS VHF-FM P25 Repeaters





# Transportable / Airborne Repeater Operations

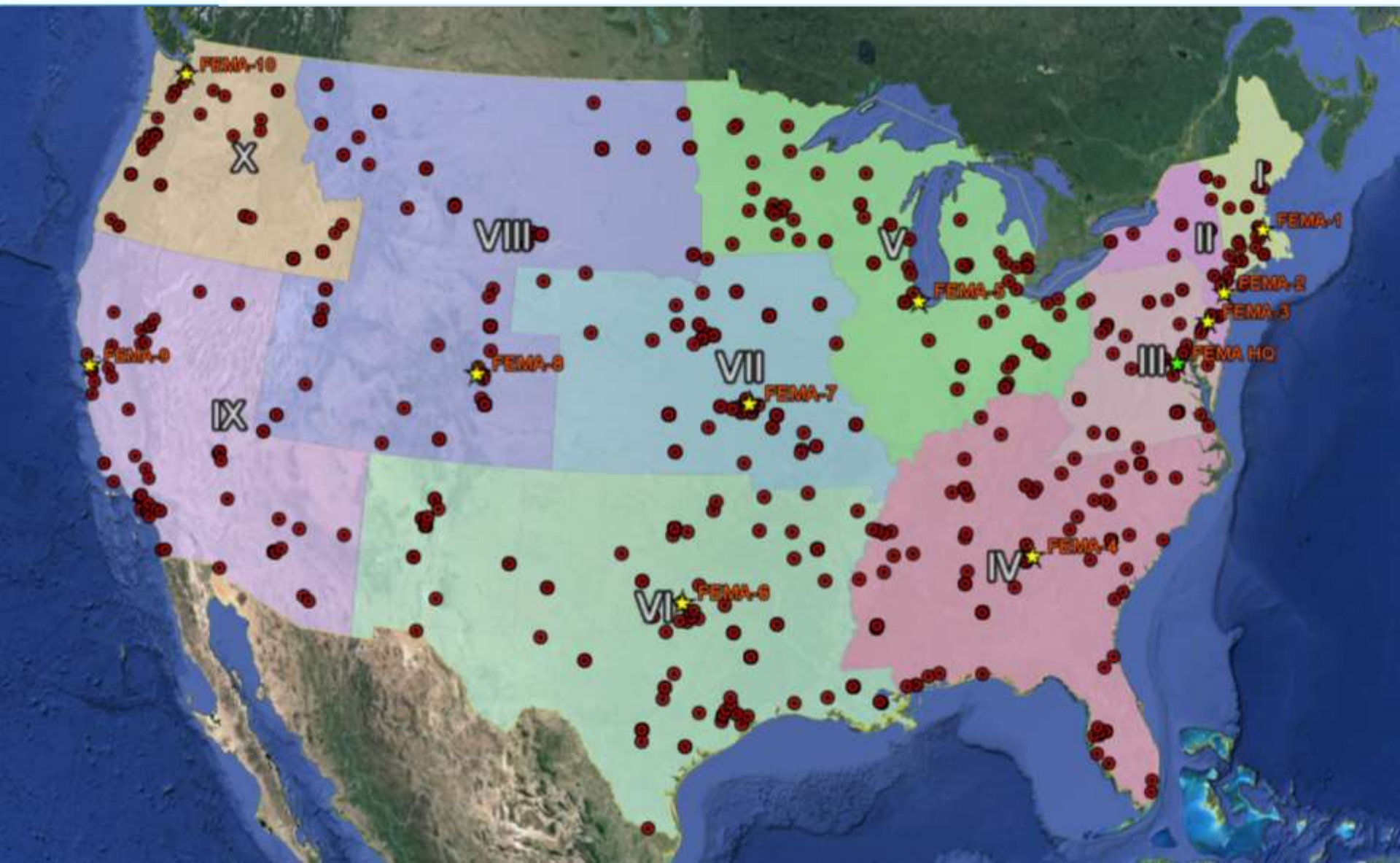


- ➔ 152 Transportable / Airborne Repeaters
  - ➔ VHF/FM Dual Mode (analog/P25) secure capable
  - ➔ Ground and air operations
  - ➔ Most CAP aircraft equipped to host
  - ➔ Thousands of square mile coverage
  - ➔ Other agency repeaters (VHF/UHF/800)
  - ➔ Expandable capability





# CONUS VHF-FM P25 Base Stations





# HF Fixed and Mobile Operations

- ➔ Mobat Micom series HF radios
  - ➔ Medium and long haul capabilities
  - ➔ Conventional, ALE and AMD operations
    - ➔ 285 HF ALE Base stations (1,168 planned)
    - ➔ 807 HF Non-ALE Base stations
    - ➔ 261 HF ALE Mobile stations (571 planned)
    - ➔ 30 HF Non-ALE Mobile stations







# National Traffic Net

- National tier of a traffic system tying together 60 wing and region nets
- Collective callsign: Triblade
- All 52 CAP wings
- Average 140+ stations daily
- ACP125 operations
- Formal traffic up to FLASH precedence

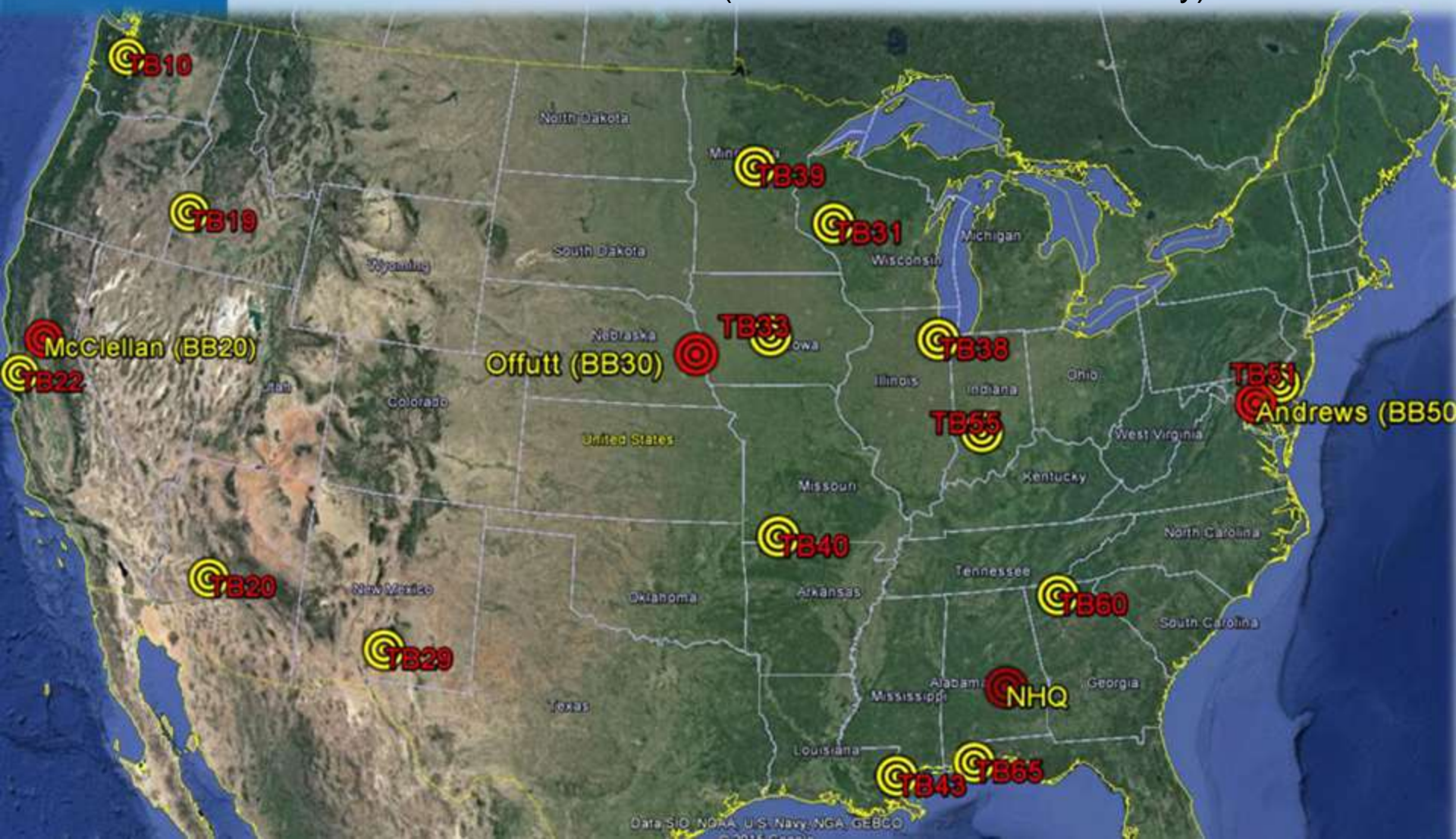






# Triblade NCS Team

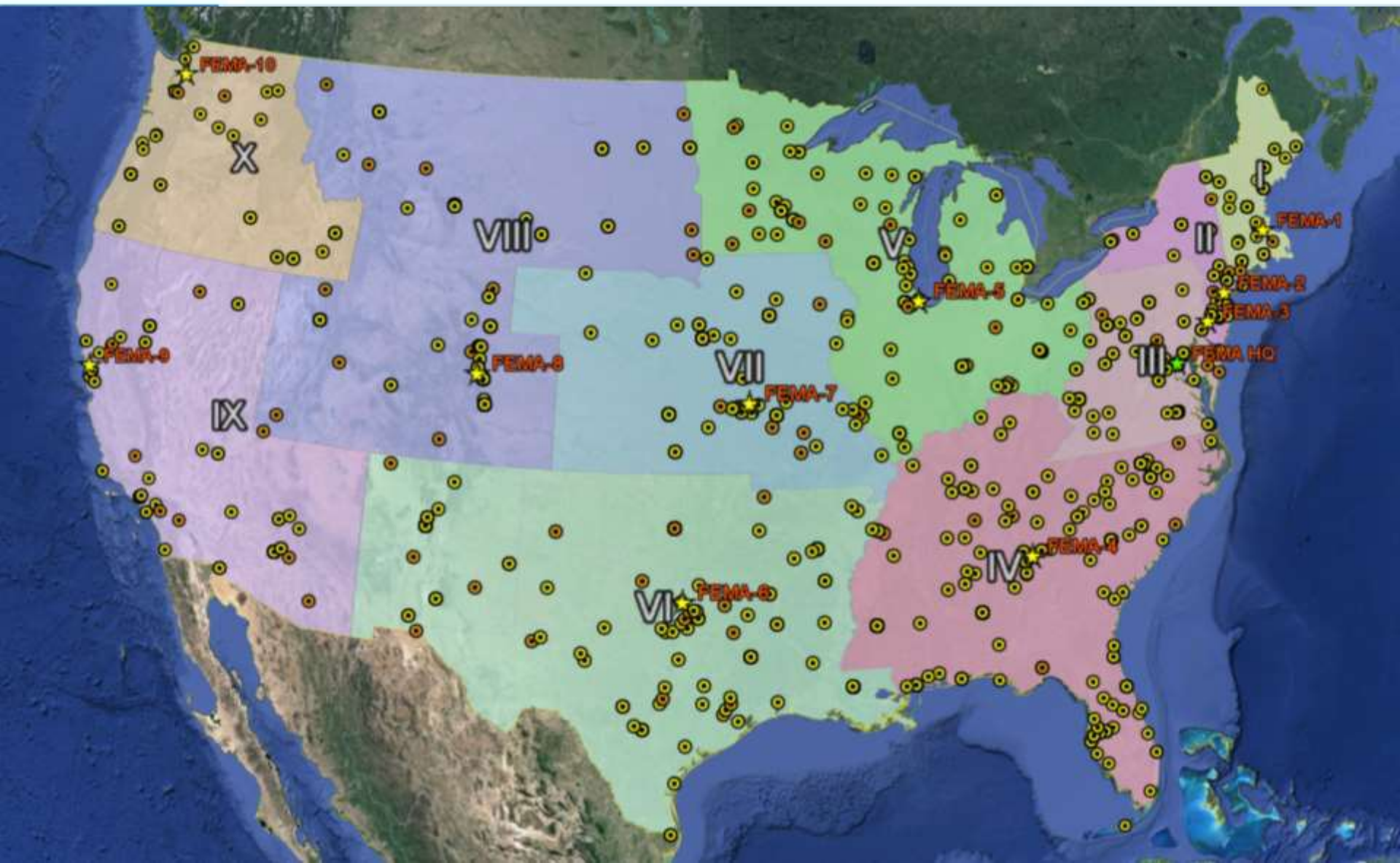
Distributed Net Control (MNCS/NCS/ANCS hierarchy)







# CONUS HF Fixed Stations







# Contact Information

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# Civil Air Patrol



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